

REMARKS

Claims 1, 3-14 and 16-25 are currently pending. Claims 1, 3, 4, 7-14, 16, 17 and 20 have been amended herein. Claims 2 and 15 have been canceled without prejudice or disclaimer. New claims 21-25 have been added to round out the scope of protection sought.

Drawing Objection

The drawings have been objected to by the draftsman for various informalities as set forth in the Notice of Draftsman's Patent Drawing Review. It appears that the Draftsman's comments pertain to the informal drawings that were originally filed rather than to the formal drawings that were filed on August 2, 2001. Accordingly, the formal drawings are being resubmitted herewith. Withdrawal of the objection is respectfully requested.

Prior Art Rejections

The Office Action includes a rejection of claims 1-14 and 16-20 under 35 U.S.C. § 102(e) as allegedly being anticipated by Russo et al. patent (U.S. Patent No. 6,535,622). Independent claims 1 and 12 have been amended, and claims 2 and 15 have been canceled. It is respectfully submitted that claims 1, 3-14 and 16-20 are not anticipated by the Russo et al. patent.

In particular, claim 1 has been amended to include subject matter from claims 2 and 15, and recites a method of preventing false acceptance in a system for checking fingerprints which comprises a sensor. The method comprises recording a fingerprint with the sensor, and evaluating whether the recorded fingerprint originates from a latent fingerprint on the sensor or from a finger placed on the sensor on the basis of the location of the recorded

fingerprint on the sensor in relation to an integral coordinate system of the sensor. Claim 12 has been amended to include subject matter from claim 15 and recites a system for fingerprint checking comprising a sensor, wherein the system is arranged to detect a latent fingerprint on the sensor so as to prevent false acceptance, and wherein the sensor has an integral coordinate system.

The Office has acknowledged (paragraph 5 of the Office Action) that the Russo et al. patent does not disclose a sensor having an integral coordinate system. As noted above, claims 1 and 12 both recite subject matter wherein the sensor has an integral coordinate system. Accordingly, withdrawal of the § 102(e) rejection is respectfully requested for at least this reason.

The Office Action also includes a rejection of claim 15 under 35 U.S.C. § 103(a) as allegedly being unpatentable over the Russo et al. patent as applied to claims 1-14 and 16-20 and further in view of the Tomko et al. patent (U.S. Patent No. 5,712,912). This rejection is respectfully traversed since claim 15 has been canceled.

Moreover, Applicants respectfully submit that independent claims 1 and 12, which now incorporate subject matter from claim 15, are also patentable over the applied references. As noted above, the Office has acknowledged that the Russo et al. patent does not disclose a sensor having an integral coordinate system. However, the Office suggests that the Tomko et al. patent discloses a system for securely storing a personal identification number (pin) or a cryptographic key, wherein the sensor has an integral coordinate system, citing column 9, lines 2-4 therein. The Office suggests it would have been obvious to one of ordinary skill in the art to modify the Russo et al. system to include a sensor having an integral coordinate system as allegedly disclosed in the Tomko et al. patent for the purpose of defining "the coordinates of the peaks with their relative position [] to make the algorithm invariant to a possible rotation of a finger and also to form the unique vector", citing column 9, lines 17-20 of the Tomko et al. patent.

Applicants respectfully submit that the Office's rejection relating to claim 15 does not make out a *prima facie* case of obviousness, and would therefore not render claims 1 and 12 unpatentable. In particular, contrary to the Office's suggestion, the word "integral" referred to at column 9, lines 2-4 of the Tomko et al. patent refers to an integral in the sense of a mathematical integration operation carried out in rectangular coordinates (specifically a Gabor transform) related to Equation 9 therein. As such, this section of the Tomko et al. patent has nothing to do with a sensor having an integral coordinate system as recited in independent claims 1 and 12. Accordingly, even if the disclosures of the Russo et al. patent and the Tomko et al. patent were hypothetically combined, the resulting system would not possess the features recited in independent claims 1 and 12.

Moreover, as recited in claim 1, it is determined whether a recorded fingerprint originates from a latent fingerprint or a finger placed on the sensor on the basis of the location of the recorded fingerprint on the sensor in relation to an integral coordinate system of the sensor, i.e., by means of absolute location values. In contrast, the Russo et al. system determines whether a recorded fingerprint originates from a latent fingerprint or a finger placed on the sensor by performing a relative comparison, a correlation operation, between an acquired image and a stored image. The use of a sensor with an integral coordinate system, such as recited in claim 1, which can generate absolute location, results in an improvement of a false acceptance rate and a false rejection rate, and does so with less memory and less processing requirements, since the absolute values are directly linked to positions on the fingerprint sensor. Claim 12 similarly recites that the sensor has an integral coordinate system. Accordingly, claims 1 and 12 are patentable over the applied references at least for this additional reason.

In addition, Applicants respectfully submit that one of ordinary skill in the art would not have been motivated to combine the disclosures of the Russo et

al. patent and the Tomko et al. patent as suggested by the Office. In particular, the Office's suggested motivation for combining the applied references is based on a misinterpretation of the Tomko et al. patent, as discussed above. Accordingly, it is believed that the Office's motivation for combining the applied references is deficient for at least this reason.

Withdrawal of the rejection and allowance of claims 1 and 12 are respectfully requested for at least this additional reason.

Dependent claims 3-11, 13, 14, and 16-20 are allowable at least by virtue of dependency. Allowance of these claims is respectfully requested.

Miscellaneous Claim Amendments

Various additional amendments have been made to the claims for readability (e.g., claim 13), to correct typographical errors (e.g., claim 16), and to conform the claim language to that of conventional U.S. patent practice (e.g., reference numerals have been removed and use of the word "characterised" has been eliminated). These changes are not intended to be related to patentability or to narrow the scope of the claims. In addition, other claims have been amended to adjust their dependencies.

New Claims

New claims 21-25 have been added herein to round out the scope of protection being sought. These claims are allowable at least for reasons similar to those set forth above. Allowance of claims 21-25 is respectfully requested.


Conclusion

In light of the foregoing, withdrawal of the objections and rejections of record are respectfully requested so that the present application may pass to issuance. Should there be any questions in connection with this application, the Office is invited to contact the undersigned at the number indicated below.

Respectfully submitted,

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